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Canada. Royal commission investigating
the cost of farm machinery and repair
parts.

Submission by the National
Farmers Union. Jan. 16 - 17, 1968.

National Farmers Union

Submission

to the

Canada
Royal Commission Investigating the Cost of

Farm Machinery and Repair Parts

Ottawa, Canada,

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The National Farmers Union welcomes the opportunity of appearing before the Royal Commission Investigating the Cost of Farm Machinery and Repair Parts. We were among those who urged the Government of Canada to undertake the study you are engaged in.

The NFU is composed of the farm unions in the provinces of British Columbia, Alberta, Saskatchewan, Manitoba and Ontario. Through the NFU, provincial unions co-ordinate their thinking and their actions in matters affecting farmers that may be defined as national in nature. The NFU, then, is not a direct membership organization, but rather a federation of direct annual dues-paying membership organizations. The recent conventions of provincial unions have resolved to work more closely together for the purpose of bargaining collectively for and on behalf of farmers. This is significant at this time as it reflects a growing awareness among farmers of their inability as individual entrepreneurs to survive in a society dominated by corporate business and industry. It is a recognition by farmers that problems can no longer be regarded regionally nor solved regionally, but must be regarded nationally and resolved nationally. It is not our intention to duplicate the submissions made to you by provincial farm unions, but to complement them.

In submissions to the Canadian government through the years, the NFU has pointed out the need for a bold approach to farm problems, not on a fragmentary basis as each crisis arises, but as a co-ordinated national approach that will assure the survival of the industry based on farm family ownership and control.

We regret to say we detect no strong philosophical orientation in government policy toward this concept. We express the hope your Commission will give careful consideration to the effects of its recommendations on the structure of agriculture in Canada.

The terms of reference given to your commission leave no doubt as to the intention of the government of Canada. Clearly the intent was to determine the effect on the user of agricultural machinery and to receive recommendations so that Canadian farmers would be placed in the best possible position in respect to agricultural machinery.

In his book, "Capitalism, Socialism and Democracy", Joseph A. Schumpeter describes in Chapter 7 what he calls the process of "creative destruction" that incessantly revolutionizes the economic structure from within. This, he says, is the essential fact about capitalism. To observe it, he says we must judge its performance over time, and secondly, we cannot look effectively at only one phase. "The usual theorist's paper and government commission's report," he says, "usually visualizes how capitalism administers existing structures, whereas the relevant problem is how it creates and destroys them. As long as this is not recognized, the investigator does a meaningless job. As soon as it is recognized, his outlook on capitalist practice and its social results changes considerably."

In addition to the Canadian Government through the years, the NSF

is joined out the need for a self approach to farm problems, not on a

temporary basis as each crisis arises, but as a co-ordinated national approach

that will ensure the survival of the industry under its own ownership and

control.

We repeat to say we object to having political opposition in government

policy toward this country. We express the hope your Commission will give

careful consideration to the effects of the recommendations on the situation in

agriculture in Canada.

The terms of reference given to your commission leave no doubt as to

the mission of the government of Canada. Clearly the intent was to determine

the effect on the use of agricultural machinery and to secure recommendations

so that Canadian farmers would be placed in the best possible position in respect

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describes in Chapter 7 what he calls the process of "creative destruction" that

inevitably revolutionizes the economic structure from within. This process

is the essential fact about capitalism. To observe it, he says we must

be ready to make over time, and secondly, we cannot look objectively at a process

alone. "The usual method's error and its remedy," says the report, "is

to study the existing economic structure and to study the existing

structure as it is now in creation and destruction. As long

as this is not recognized, the investigation loses its meaning. As soon

as it is recognized, the method in capital practice and the social results

changes considerably.

Dr. Schumpeter continues, "The first thing to go is the traditional conception...of competition...As soon as quality competition, and sales effort are admitted...the price variable is ousted from its dominant position. However, it is still competition...methods of production and forms of industrial organization in particular, that practically monopolize attention. But in capitalist reality as distinguished from its textbook picture, it is not that kind of competition which counts (underlining our own), but the competition from the new commodity, the new technology, the new source of supply, the new type of organization (the largest scale unit of control, for instance)-- competition which commands a decisive cost or quality advantage, and which strikes not at the margins of the profits and the outputs of the existing firms, but at their foundations and their very lives."

The task given to your commission, then, is not only to investigate and recommend on costs, but to determine to what extent farm machinery has created and is destroying the structure of agriculture in Canada.

The terms of reference of your commission are sufficiently broad to allow you to enquire into this aspect, in that they state, "...to enquire into the costs of farm machinery and repair parts and, in particular, without limiting the generality of the foregoing, to consider and report upon..."

We urge you to consider carefully whether it is desirable for Canada as a nation to allow the foundations upon which our rural culture is built to be destroyed."

Generally speaking, up until the recent past, mechanization of farms has taken a great deal of the physical labor out of the growing of food.

A great deal of labor-saving devices have been developed by the machine companies. Early models of tractors took the place of the horse to pull a load. Power take-off from a tractor replaced the principle of ground drive. Mechanical planters and harvesters replaced hand labor. Machines took the place of people in production. But the basic structure remained. Public policies have been designed to assist the farmer to mechanize.

Let us examine some public policies and compare them with new technology:

1) Farm improvement loans are available for the erection and improvement of dairy barns, while Canada permits the manufacture and sale of margarine. The question is: What effect is margarine having on the structure of dairying in Canada?

2) Public monies have encouraged the erection of large greenhouses for growing fruits and vegetables. New modes of transport have enabled quality fresh produce to be moved rapidly from southern areas, which threatens the elimination of Canadian greenhouse growers.

3) Public monies are available for the erection of large-scale hog barns and cattle feeding to encourage the use of new technology in breeding, feeding and housing. Canadian Wheat Board regulations in respect to price and quota have been relaxed, allowing a two-price system for grain in Canada. What is the effect of these policies on ..

- a) Western farmers feeding their own grain to their own livestock;
- b) Eastern feeders who purchase feeds at world prices.

4) Farm improvement loans are available for the purchase of farm machinery, including machinery suitable for a small farm. At the same time,

machine companies continue to introduce larger machines on the market.

Appearing before your commission, a spokesman for Ford of Canada said he expected the tractor in general use in not too many years will be 250 H.P. When asked under what circumstances it would be used, the reply was, "Under the very expansive farming conditions of Western Canada, that type of tractor could be used effectively." Which machine should be used in Western Canada?

5) Young people are encouraged to become more highly educated in all fields including agriculture where emphasis is placed on "production" and efficiency, while our public credit programs exclude those without financial backing from entering agricultural production directly. They must seek employment in what is becoming known as "agro-business".

We are not suggesting that agriculture needs to be a static industry, or that changes should not come about. We do say that Canada and Canadians should determine what we want to emerge "x" number of years from now and work toward the desired goal. We must place emphasis on the things that take us there and hold in check the things that take us elsewhere.

The National Farmers Union sincerely believes that it is imperative that the production of food should not be allowed to pass from the individual to the corporation.

New technology is in the process of changing the whole structure of agriculture. New methods of processing and marketing, new methods of organizing and controlling, notably the chain store, are demanding changes in production patterns. New inputs into production such as fertilizers, chemicals, machines, etc., and methods of controlling distribution of inputs are demanding changing commitments by farmers. The trend is to tie in the production of

food with the input side and the marketing side. In some cases the industry has entered production directly.

Farmers' co-operatives are following the same path or a parallel path to that taken by the corporate business sector. We see no basic difference in the two except the distribution of earnings, or profit, whichever term happens to be used.

J. K. Galbraith, writing in the Atlantic Monthly, comparing publicly owned and privately owned industrial enterprise, says, "So it seems likely that the Soviet resolution of the problem of authority in the industrial enterprise is not so different from that in the West. Like that of the shareholder in the United States or Britain, the authority of the people and party is celebrated in public ritual. They are pictured as paramount, as the stockholder is with us. But in practice, as with us, extensive and increasing power of final decision is vested in the enterprise."

We suggest that co-operatives are in the same ball park and playing in the same league in that authority in co-operatives, in spite of public ritual, must also be vested in the enterprise.

If machine companies and others are left to their own devices, there is little doubt in the minds of farmers that the structure of agriculture will change in the foreseeable future from one of individual control and ownership to one totally integrated into the corporate sector of our economy.

Present Structure of Farms

In its submission to you on March 30, 1967, the Saskatchewan Farmers Union said it had not completed compiling the information obtained from a

survey its locals had made. This has been completed and the information made available to the National Farmers Union.

Locals of the Saskatchewan Farmers Union took a questionnaire to all farmers in eleven townships in widely separated parts of Saskatchewan. The information was coded and analyzed by a computer. The tables to follow give a clear indication of the structure of agriculture in Saskatchewan, and an indication of sometimes extreme desire of the farmer to remain an independent operator.

In placing a value on the machines reported on farms surveyed, the SFU used the "Official Tractor and Farm Equipment Guide", Spring 1967 edition, and compiled by National Farm and Power Equipment Dealers Association. The Guide values machines at average resale price in the North American market, not a Saskatchewan or Canadian market. No attempt was made to determine the condition of the machine. Some machines and models of other machines were not listed in the Guide. In these cases a value was placed on it by the tabulator.

The source of all tables is the survey conducted by the Saskatchewan Farmers Union.

Table 1 shows the number of respondents who operate selected numbers of quarter sections.

Table 1
Size of Farms

No. of 1/4 sec. operated	1	2	3	4	5	6	7	8	8+	Total
Number	15	51	52	47	32	24	11	12	22	266
Percentage	5.6	19.2	19.5	17.7	12.0	9.0	4.1	4.5	8.3	100

For the sake of calculation, we have estimated that those operating more than eight quarters to be operating on the average ten quarters. The survey represents these operating a total of 1158 quarter-sections. This represents an average of 4.353 quarter-sections per respondent or 696.48 acres.

In its Annual Review of 1966, the Saskatchewan Government reports the average size farm in Saskatchewan in 1961 to be 686 acres. This survey, then, would represent the average size farm in Saskatchewan.

Table 2 shows the proportion of quarter-sections operated by union members and those not members of the union. It can be seen that union members operate proportionately more land than those who are not members.

Table 2
Proportionate number of quarters operated by SFU members and those not members of SFU

No. of 1/4's operated	1	2	3	4	5	6	7	8	8+	Total
No. of SFU	33.3	56.9	59.6	72.3	56.3	66.7	81.8	66.7	81.8	63.2
Non-members	66.7	41.2	40.4	27.7	43.8	33.3	18.2	33.3	18.2	36.5
No answer	0	2.0	0	0	0	0	0	0	0	.4
Total	100	100	100	100	100	100	100	100	100	100

Table 3 shows the number of respondents who acquired their first quarter in selected years, or when the respondent started farming.

Table 3
First Quarter Acquired

	Before 1920	1921 1930	1931 1940	1941 1945	1946 1950	1951 1955	1956 1960	1961 1964	After 1964	No Ans.	Total
Year											
Number	7	17	39	38	51	37	43	21	8	5	266
Percentage	2.6	6.4	14.7	14.3	19.2	13.9	16.2	7.9	3.0	1.9	100

During the years 1961 to the end of 1966, only 10.9% began farming while the previous periods of five years 16.2%, 13.9%, 19.2% and 14.3% of respondents began farming. This is an indication of a greater difficulty, or less desire by young people to enter the industry.

Table 4 shows the proportionate number of SFU members and those not members who acquired their first quarter in selected years.

Table 4
Proportion of SFU Members and Those Not a Member Who Acquired
Their First Quarter in Selected Years

Year	Before	1921	1931	1941	1946	1951	1956	1961	After No		
Acquired	1920	1930	1940	1945	1950	1955	1960	1964	1964	Ans.	Total
Member SFU	71.4	64.7	76.9	68.4	58.8	70.3	58.1	42.9	37.5	60.0	63.2
Non-Member	28.6	29.4	23.1	31.6	41.2	29.7	41.9	57.1	62.5	40.0	36.5
No answer	0	5.9	0	0	0	0	0	0	0	0	.4
Total	100	100	100	100	100	100	100	100	100	100	100

Table 4 indicates that SFU membership tends to be higher among those who began farming prior to 1960.

Table 5 shows the number and percentage of respondents who acquired their first and last quarters by selected methods.

Table 5
Number and Percentage Who Acquired Their First and Last Quarter
By Selected Methods

How acquired	Cash								Total
	Home- stead	In- herited	Cash	and Terms	VLA FCC	Private Loan	Lease	Other	
First quarter	15	36	43	39	44	41	31	1	250
Percentage	6.0	14.4	17.2	15.6	17.6	16.4	12.4	.4	100
Last quarter	3	20	39	16	76	35	60	0	249
Percentage	1.2	8.0	15.7	6.4	30.5	14.1	24.1	0	100

Table 5 indicates a greater use made of public finance and leasing, in acquiring land, a drop in cash and terms arrangements, while outright cash purchase is reasonably constant.

Table 6 indicates the number of respondents who acquired their last quarter in selected years.

Table 6
Last Quarter Acquired

Year	Before	1921-	1931-	1941-	1946-	1951-	1956-	1961	After No		
	1920	1930	1940	1945	1950	1955	1960	1964	1964	Ans.	Total
Number	2	3	11	13	23	24	46	77	61	6	266
Percentage	.8	1.1	4.1	4.9	8.6	9.0	17.3	28.9	22.9	2.3	100

Table 6 demonstrates expansion of farm size in Saskatchewan, in that 51.8% of respondents acquired their last quarter after 1960 while only 10.9% acquired their first quarter during this period.

Table 7 shows the proportion of union members and those not members who acquired their last quarter in selected years.

Table 7
Proportion Union Members and Non-Members Who Acquired Their
Last Quarter in Selected Years

Year Acquired	Before 1920	1921- 1930	1931- 1940	1941- 1945	1946- 1950	1951- 1955	1956- 1960	1961- 1964	After No 1964	Ans.	Total
SFU Member	50.0	33.3	72.7	69.2	60.9	54.2	56.5	67.5	67.2	50.0	63.2
Non-Member	50.0	33.3	27.3	30.8	39.1	45.8	43.5	32.5	32.8	50.0	36.5
No Answer	0	33.3	0	0	0	0	0	0	0	0	.4
Total	100	100	100	100	100	100	100	100	100	100	100

Table 7 demonstrates that union members are expanding their acreage proportionately more than those who are not members.

Table 8 shows the number of respondents who acquired their first and last quarters in selected years.

Table 8
First and Last Quarter Acquired

First 1/4 Acquired	Before 1920	1921- 1930	1931- 1940	1941- 1945	1946- 1950	1951- 1955	1956- 1960	1961- 1964	After No 1964	Ans.	Total
Last 1/4											
before 1920	2	0	0	0	0	0	0	0	0	0	2
1920-30	1	2	0	0	0	0	0	0	0	0	3
1931-40	1	0	10	0	0	0	0	0	0	0	11
1941-45	1	2	2	8	0	0	0	0	0	0	13
1946-50	1	1	3	2	16	0	0	0	0	0	23
1951-55	1	1	3	5	6	8	0	0	0	0	24
1955-60	0	4	4	5	4	5	23	0	1	0	46
1961-64	0	5	10	10	11	15	10	15	0	1	77
After 1964	0	2	7	7	13	9	10	6	7	0	61
No answer	0	0	1	1	0	0	0	0	0	4	6
Total	7	17	39	38	51	37	43	21	8	5	266

It cannot be said that expansion is taking place by a particular age group,

but that expansion of acreage is reasonably uniform among age groupings, except those who began farming before 1930 (Table 8).

Table 9 shows the tenure status of respondents.

Table 9
Tenure Status of Respondents

Tenure Status	Owner	Tenant	Part Owner, Part Tenant	Total
Number	150	18	92	260
Percentage	57.7	6.9	35.4	100

Table 10 shows cattle and hog sales by respondents in the years 1964, 1965 and 1966.

Table 10
Cattle and Hog Sales

Cattle Sales	1964	1965	1966	Hog Sales	1964	1965	1966
10 or less	92	87	82	10 or less	11	12	19
11-20	51	52	51	11-20	17	15	17
21-30	12	21	26	21-30	14	17	15
31-40	13	13	14	31-40	8	6	9
41-50	5	6	5	41-50	5	9	8
51-60	2	5	3	51-60	4	8	5
61-70	0	1	5	61-70	8	0	1
71-80	2	2	2	71-80	7	5	4
More than 80	2	2	1	More than 80	7	11	9
No. of Replies	180	189	189	No. of Replies	81	83	87

Table 11 shows the number of respondents who hire help for selected numbers of man days.

Table 11
Hired Help

No. Man Days	0-10	11-20	21-30	31-40	41-50	51-75	76-100	More than 100	Total
Number of Respondents	14	18	13	2	5	6	5	23	86

Table 12 shows the membership in Canadian Co-operative Implements Ltd. by those included in the survey.

Table 12
CCIL Membership

Member CCIL	Yes	No	No Answer	Total
Number	126	138	2	266
Percentage	47.4	51.9	.8	100

Table 13 shows the proportion of union members and those not members who are members of CCIL.

Table 13
Proportion of Membership in Union and CCIL

Member CCIL	Yes	No	No Answer	Total
SFU member	79.4	48.6	50.0	63.2
Non-member	20.6	51.4	0	36.5
No answer	0	0	50.0	.4
Total	100	100	100	100

It can be seen that if a farmer is a member of the union he will probably also be a member of CCIL.

Tables 1 to 13 show that those responding to the survey operate what can be considered an average farm in Saskatchewan. Products grown and marketed are mainly cereal grains, beef and pork. They began farming any time since before 1920 to after 1964. Their acreage is anywhere between one quarter section and more than two sections. Some have homesteaded their first quarter while others have acquired land in a variety of ways. Many are expanding their acreage while others appear to be content with their present holding or have not been able to expand; 63.2% are members of the union and 47.4% are members of CCIL; 34% employ hired help ranging in time of a few days to more than 100 days a year.

The following tables show the machinery in use on the farms covered in the survey. They will show the size, make, year new, year acquired, how acquired, value, and value of other implements on these farms. The series of tables will conclude with the total investments in farm machinery of the farms covered in the survey.

TRUCKS

Table 14 shows the number of trucks of selected sizes in use on farms.

Table 14
Truck Size

Truck Size	1/2 ton	3/4 ton	1 ton	1-2 ton	2-3 ton	Over 3 ton	No Answer	Total
Number	59	14	79	43	32	1	38	266
Percentage	22.2	5.3	29.7	16.2	12.0	.4	14.3	100

It can be seen that generally speaking the most popular farm truck is the smaller size.

Table 15 shows the number of trucks that were new in selected years.

Table 15
When Truck New

Year Truck New	1966	1965	1964	1963	1962	1961	1960	1955 - Before			Total
								1959	1955	No ans.	
Number	15	10	5	14	4	8	6	33	130	41	266
Percentage	5.6	3.8	1.9	5.3	1.5	3.0	2.3	12.4	48.9	15.4	100

Table 15 shows that farmers are using older model trucks.

Table 16 shows the number of trucks that were acquired in selected years.

Table 16
When Truck Acquired

Year bought	1966	1965	1964	1963	1962	1961	1960	1955 - Before No			Total
								1959	1955	Ans.	
Number	50	37	23	26	11	7	7	28	37	40	266
Percentage	18.8	13.9	8.6	9.8	4.1	2.6	2.6	10.5	13.9	15	100

If we combine tables 15 and 16, 30 trucks were new in 1964, 1965 or 1966, and 110 were bought in those years; 23 were new in 1961, 1962 or 1963, and 44 were bought; 169 were new before 1961 and 72 were bought. It is clear many farmers are buying used trucks.

Table 17 shows the number of trucks acquired, using different types of financing.

Table 17
How Truck Acquired

How Truck Bought	Cash	FIL	Loan C.U.	Loan Bank	Co. Fin.	Terms Dlr.	In-herited	No Ans.	Total
Number	141	31	2	16	16	9	1	49	265
Percentage	53.2	11.7	.8	6.0	6.0	3.4	.4	18.5	100

The most popular method of acquiring a truck is to pay cash for it and 53.2% of truck purchases are for cash.

Table 18 shows the number of trucks in use with selected values.

Table 18
Value of Trucks

	Less than 500					More than 5001-					No	
Value of trucks (in dollars)	500	1000	1500	2000	3000	4000	5000	7000	7000	7000	Ans.	Total
Number	119	44	23	21	8	5	7	0	1	38		266
Percentage	44.7	16.5	8.6	7.9	3.0	1.9	2.6	0	.4	14.3		100

61.2% of trucks used have a value of less than \$1000 (table 18).

Table 19 shows the number of other trucks of selected values used on farms. Those included in this table would have more than one truck.

Table 19
Value of Other Trucks
(in dollars)

	Less than 500					More than 5001-					Not Applicable	
Value of trucks (in dollars)	500	1000	1500	2000	3000	4000	5000	7000	7000	7000	able	Total
Number	28	13	11	8	6	2	0	0	0	198		266
Percentage	10.5	4.9	4.1	3.0	2.3	.8	0	0	0	74.4		100

Tables 14 to 19 concerning trucks demonstrate that farmers are keeping their overhead down by using smaller sized, older model trucks, many of which they have bought as used vehicles; 25.6% of farmers have more than one truck.

TRACTORS

Table 20 shows the number of tractors in use on farms that are of selected HP ratings.

Table 20
H.P. of Tractors

	Less than 25HP	26- 40	41- 60	61- 70	71- 80	81- 90	91- 100	Over 100	No Ans.	Total
Size in HP										
Number	7	67	107	39	31	6	1	2	6	266
Percentage	2.6	25.2	40.2	14.7	11.7	2.3	.4	.8	2.3	100

Table 20 (a) shows the proportion of union members and those not members who have tractors of selected H.P. ratings.

Table 20 (a)
Proportion with Tractors of Selected HP

Tractor Sizes in H.P.	Less than 25	26- 40	41- 60	61- 70	71- 80	81- 90	91- 100	100+	No Ans.	Total
Member	42.9	50.7	62.6	79.5	74.2	66.7	0	100	66.7	63.2
Non-Members	57.1	47.8	37.4	20.5	25.8	33.3	100	0	33.3	36.5
No answer	0	1.5	0	0	0	0	0	0	0	.4
Total	100	100	100	100	100	100	100	100	100	100

Proportionately, union members have more of the larger size tractors (table 20 (a))

Table 21 shows the number of selected make of tractor in use on farms covered in the survey.

Table 21
Tractor Make

Make of Tractors	CCIL	JD	MF	IHC	Case	MM	Cock- shutt	Ford	Other	No Ans	Total
Number	10	69	48	37	29	19	22	17	12	3	266
Percent	3.8	25.9	18.0	13.9	10.9	7.1	8.3	6.4	4.5	1.1	100

Table 22 shows the number of tractors new in selected years as shown by the survey.

Table 22
Tractor Age

1955 - Before											
Year	1955 - Before										
Tractor New	1966	1965	1964	1963	1962	1961	1960	1959	1955	NoAns.	Total
Number	26	23	20	14	21	16	13	48	77	8	266
Percent	9.8	8.6	7.5	5.3	7.9	6.0	4.9	18.0	28.9	3.0	100

Table 23 shows the number of tractors bought in selected years.

Table 23
Year Tractor Bought

Year Tractor	55- Before No. 1										
Acquired	1966	65	64	63	62	61	60	59	55	Ans.	Total
Number	55	43	36	31	24	10	16	23	25	3	266
Percentage	20.7	16.2	13.5	11.7	9.0	3.8	6.0	8.6	9.4	1.1	100

Table 24 combines tables 22 and 23 to show the purchasing pattern.

Year	64	65	66	61	62	63	Before 61	No Answer	Total
Tractor new		25.9			19.2		51.8	3.0	100
Tractor bought		50.4			24.5		24.0	1.1	100

It is very clear that many farmers are purchasing used tractors. For example, 50.4% of the tractors were bought in 1964 or later, but only 25.9% were new in those years (Table 24).

Table 25 shows the number of tractors bought using various types of finance.

Table 25
Tractor Credit Source

How Tractor Purchased	Cash	FIL	Loan C.U.	Loan Bank	Co. Fin.	Terms Dlr.	In-herited	No Ans.	Total
Number	82	116	6	23	16	7	0	16	266
Percentage	30.8	43.6	2.3	8.6	6.0	2.6	0	6.0	100

Table 25 indicates that FIL and cash purchase finances a very high percentage of tractors.

Table 26 shows the number of tractors of selected dollar values as shown by survey.

Table 26
Tractor Value
(in dollars)

Tractor Value	More									No	Total
	Less 500	501-1000	1001-2000	2001-3000	3001-4000	4001-5000	5001-7000	7001-10000	10000	Ans.	
Number	36	41	45	46	30	25	34	6	0	3	266
Percent	13.5	15.4	16.9	17.3	11.3	9.4	12.8	2.3	0	1.1	100

Table 27 shows the number of additional tractors in use of selected dollar values. Those represented in this table would have more than one tractor on their farms.

Table 27
Additional Tractor Values
(dollars)

Value of Other Tractors	More No									Total
	Less 500	500-1000	1001-1500	1501-2000	2001-2500	2501-3000	3001-4000	4001-6000	6000	
Number	51	33	19	6	7	6	1	2	1	140
Percent	19.2	12.4	7.1	2.3	2.6	2.3	.4	.8	.4	52.6

Table 28 compares the number of quarter sections operated with the H.P. of tractors.

Table 28
No. of Quarters and H.P. of Tractor

H.P. of Tractor	Less 25	25-40	41-60	61-70	71-80	81-90	91-100	100+	No	Total
									Ans.	
1 quarter	6	7	1	0	0	0	0	0	1	15
2	1	29	21	0	0	0	0	0	0	51
3	0	20	24	5	1	0	0	1	1	52
4	0	5	27	9	4	1	0	0	1	47
5	0	3	15	7	3	1	0	1	2	32
6	0	2	7	7	6	1	1	0	0	24
7	0	0	2	5	4	0	0	0	0	11
8	0	1	4	1	5	1	0	0	0	12
More than 8	0	0	6	5	8	2	0	0	1	22
Total	7	67	107	39	31	6	1	2	6	266

As a general rule, farmers do have the size of tractor best suited to the number of quarters operated (table 28).

Table 29 compares the number of quarters operated with the year tractor was new.

Table 29
Number of Quarters & Age of Tractors

Year Tractor New	66	65	64	63	62	61	60	55- 59	Before 55	No Ans.	Total
1 quarter	0	0	0	0	0	0	0	2	11	2	15
2	1	1	1	3	2	2	0	8	30	3	51
3	6	0	2	1	2	3	2	17	19	0	52
4	6	2	3	1	9	2	4	10	8	2	47
5	4	5	2	3	1	4	1	5	6	1	32
6	2	5	4	2	2	1	3	3	2	0	24
7	1	3	2	1	0	1	1	2	0	0	11
8	2	2	1	1	1	2	1	1	1	0	12
More than 8	4	5	5	2	4	1	1	0	0	0	22
Total	26	23	20	14	21	16	13	48	77	8	266

The majority of the older tractors are in use on farms consisting of three quarters or less (table 29).

Table 30 compares the number of quarters operated with the year tractor was bought.

Table 30
Year Tractor Bought & No. of
Quarters

Year Tractor Bought	1966	65	64	63	62	61	60	55- 59	Before 55	No Ans.	Total
1 quarter	2	0	0	2	3	0	1	4	2	1	15
2	4	9	7	8	5	2	2	4	10	0	51
3	10	5	9	5	0	3	5	9	6	0	52
4	15	5	2	3	9	2	3	4	3	1	47
5	7	6	4	4	2	2	2	1	3	1	32
6	4	6	5	4	2	0	2	1	0	0	24
7	5	0	3	3	0	0	0	0	0	0	11
8 quarters	3	4	2	0	1	1	0	0	1	0	12
More than 8	5	8	4	2	2	0	1	0	0	0	22
Total	55	43	36	31	24	10	16	23	25	3	266

Irrespective of the number of quarters operated, farmers are buying tractors. Comparing tables 29 and 30, it is clear that those with fewer quarters are buying used tractors.

The tables also indicate that the converse also is true. Farmers with more land are buying the new equipment, probably because:

- a) They have expanded and need larger new equipment.
- b) They are trying to maintain economies of scale.
- c) They are the only ones capable of purchasing higher priced equipment.

Problems are being created for both large and small farmers. Smaller farmers are unable to make economical use of the large used equipment; consequently, the large farmer is now receiving a lower trade-in value for his used equipment. The small farmer may soon find it difficult to acquire good used machines.

Mr. Brown, president of Canadian Co-operative Implements Limited, in testimony, said CCIL has a number of trucks with which they move used machines from south to north (p.3774). This is only practical as long as the demand is there. Perhaps the demand is diminishing.

Table 31 compares the year last quarter acquired and the year tractor was bought.

Table 31
Year Last Quarter Bought & Year Tractor Bought

Year Tractor Bought	1966	65	64	63	62	61	60	55-59	Before 55	No Ans.	Total
Last quarter bought before 1920	0	0	0	1	1	0	0	0	0	0	2
20-30	0	0	0	1	0	0	0	0	2	0	3
31-40	2	2	1	0	3	1	0	0	2	0	11
41-45	2	0	2	1	0	0	2	1	5	0	13
46-50	4	4	2	4	2	0	0	4	3	0	23
51-55	4	3	2	1	4	0	3	3	4	0	24
56-60	8	9	5	5	1	2	5	8	2	1	46
61-64	18	10	12	12	9	4	5	3	3	1	77
After 62	17	14	12	5	4	3	1	1	3	1	61
No answer	0	1	0	1	0	0	0	3	1	0	6
Total	55	43	36	31	24	10	16	23	25	3	266

. Those who have bought land in recent years have also bought tractors.

There seems to be no clear indication that land was bought to accommodate the tractor or vice versa (table 31).

Conclusions drawn from tables 20-31 in respect to tractors are:

- 1) Most tractors in use are of medium HP rating;
- 2) CCIL tractors have not been accepted by farmers;
- 3) Nearly half of tractors used were new before 1959;
- 4) Many tractors in use were bought as used machines.
- 5) FIL is the largest single source of credit in purchasing tractors;
- 6) 45.8% of farmers' tractors are valued at \$2000 or less;
- 7) The farmer with the smaller acreage is using the older model tractor and buying used tractors.

DRILLS

The following tables show the size, make age, etc., of drills in possession of those covered in the survey.

Table 32 shows the number of selected size of drills measured in feet.

Size in feet	Table 32 (in feet)									No ans.	Total
	8' or less	10	12	14	16	20	24	28	28+		
Number	2	28	67	59	0	0	0	1	1	98	266
Percent	.8	14.3	25.2	22.2	0	0	0	.4	.4	36.8	100

Table 33 shows the number of drills of selected make.

Make	Table 33 Make of Drill						Cock- shutt	No Other	Ans.	Total
	CCIL	JD	MF	IHC	Case	MM				
Number	0	31	15	81	7	4	25	5	98	266
Percent	0	11.7	5.6	30.5	2.6	1.5	9.4	1.9	36.8	100

Table 34 shows the number of drills new in selected years.

Table 34
Age of Drill

Year new	66	65	64	63	62	61	60	55- 59	Before 55	No Ans.	Total
Number	5	8	7	4	4	1	6	36	80	115	266
Percentage	1.9	3.0	2.6	1.5	1.5	.4	2.3	13.5	30.1	43.2	100

Table 35 shows the number of drills acquired in selected years.

Table 35
When Drill Bought

Year Acquired	66	65	64	63	62	61	60	55- 59	Before 55	No Ans.	Total
Number	24	13	17	8	11	4	16	32	42	99	266
Percentage	9.0	4.9	6.4	3.0	4.1	1.5	6.0	12.0	15.8	37.2	100

Comparing tables 34 and 35, it is clear many drills are bought as used machines.

Table 36
How Drill Bought

How Acquired	Cash	FIL	Loan C.U.	Loan Bank	Co. Fin.	Terms Dlr.	In- herited	No Other	No Ans.	Total
Number	122	24	1	5	3	1	0	0	110	266
Percent	45.9	9.0	.4	1.9	1.1	.4	0	0	41.4	100

Table 37 shows the number of drills of selected values.

Table 37
Value of Drills

Value	Less 100	100- 200	201- 300	301- 500	501- 700	701- 1000	1001- 1500	1501- 2000	More 2000	No Ans.	Total
Number	100	21	9	7	4	8	16	5	1	95	266
Percentage	37.6	7.9	3.4	2.6	1.5	3.0	6.0	1.9	.4	35.7	100

Note: No one reported more than one drill.

Conclusions drawn from tables 32-37 are:

- 1) Most drills reported in the survey are reasonably small, older style drills.

- 2) Many drills are purchased as used machines.
- 3) Capital investment in drills is kept to a minimum.
- 4) Approximately one-third of respondents do not have a drill.

DISKERS

The following group of tables shows the number of diskers in use, their size, make and value, etc., as reported in the survey.

Table 38 shows the number of diskers of selected widths.

Table 38 Disker Size											
Width in feet	12 or less	14	15	16	18	21	24	32	No Ans.	Total	
Number	107	7	51	16	10	0	1	0	74	266	
Percentage	40.2	2.6	19.2	6.0	3.8	0	.4	0	27.8	100	

Table 39 shows the number of selected makes of diskers reported.

Table 39 Make of Disker											
Make of Disker	CCIL	JD	MF	IHC	Case	MM	Cock- shutt	Other	No	Ans.	Total
Number	56	26	58	28	5	6	16	4	67		266
Percentage	21.1	9.8	21.8	10.5	1.9	2.3	6.0	1.5	25.2		100

Indications are that farmers are buying machines manufactured by CCIL (table 39).

Table 40 shows the number of diskers reported new in selected years.

Table 40 Age of Diskers											
Year										55- Before No	
Diskers New	1966	65	64	63	62	61	60	59	55	Ans.	Total
Number	6	11	14	22	9	10	23	54	39	78	266
Percentage	2.3	4.1	5.3	8.3	3.4	3.8	8.6	20.3	14.7	29.3	100

Table 41 shows the number of diskers acquired in selected years.

Table 41
Year Disker Acquired

Year Disker Acquired	1966	65	64	63	62	61	60	55- 59	Before 55	No Ans.	Total
Number	23	25	34	27	10	13	21	33	15	65	266
Percentage	8.6	9.4	12.8	10.2	3.8	4.9	7.9	12.4	5.6	24.4	100

It is clear many diskers are bought as used machines. (tables 40-41)

Table 42 shows the number of diskers bought with selected methods of finance.

Table 42
How Disker Bought

How Disker Acquired	Cash	FIL	Loan C.U.	Loan Bank	Co. Fin.	Terms Dlr.	In- herited	No Ans.	Total
Number	126	48	4	7	4	3	0	74	26
Percentage	47.4	18.0	1.5	2.6	1.5	1.1	0	27.8	100

Table 43 shows the number of diskers reported, with selected values.

Table 43
Value of Diskers
(dollars)

Diskers Value	Less 500	501- 750	751- 1000	1001- 1500	1501- 2000	2001- 2500	2501- 3000	More 3000	No Ans.	Total
Number	117	22	33	20	8	0	0	0	66	266
Percentage	44.0	8.3	12.4	7.5	3.0	0	0	0	24.8	100

Table 44 shows number of additional diskers with selected values. Those included in this table would have reported more than one disk on their farms.

Table 44
Value of Additional Diskers

Value of other Diskers	Less 500	501- 750	751- 1000	1001- 1500	1501- 2000	2001- 2500	2501- 3000	More 3000	No Ans.	Total
Number	3	1	2	1	0	0	0	0	259	266
Percentage	1.1	.4	.8	.4	0	0	0	0	97.4	100

Conclusions reached from tables 38 to 44 are:

- 1) The 12 ft. and 15 ft. diskers are the most popular.
- 2) That quality machines manufactured by CCIL are accepted by farmers.
- 3) That many diskers are bought as used machines to keep down overhead.
- 4) That approximately 25% of farmers do not have a disker.

CULTIVATORS

The following tables show the number of cultivators reported in size, make, age and value in the survey.

Table 45 shows the number of cultivators of selected width.

Table 45 Cultivator Size											
Size (in feet)	10 or less	12	14	16	18	20	24	25-30	30+	No Ans.	Total
Number	72	53	57	21	15	10	6	5	0	27	266
Percentage	27.1	19.9	21.4	7.9	5.6	3.8	2.3	1.9	0	10.2	100

Table 46 shows the number of cultivators of selected makes.

Table 46 Cultivator Make											
Make	CCIL	JD	MF	IHC	Case	MM	Cock-shutt	Vers.	Other	No Ans.	Total
Number	22	32	16	66	10	6	25	0	68	21	266
Percentage	8.3	12.0	6.0	24.8	3.8	2.3	9.4	0	25.6	7.9	100

Table 47 shows the number of cultivators new in selected years.

Table 47 When Cultivator New											
Year New	66	65	64	63	62	61	60	55-59	Before 55	No Ans.	Total
Number	13	20	19	14	19	10	32	49	60	30	266
Percentage	4.9	7.5	7.1	5.3	7.1	3.8	12.0	18.4	22.6	11.3	100

1) The first part of the report is devoted to the study of the

2) The second part of the report is devoted to the study of the

3) The third part of the report is devoted to the study of the

4) The fourth part of the report is devoted to the study of the

5) The fifth part of the report is devoted to the study of the

TABLE I

The following table shows the results of the calculations for the

TABLE II

The following table shows the results of the calculations for the

TABLE III

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

TABLE IV

TABLE V

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

TABLE VI

TABLE VII

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

Table 48 shows the number of cultivators acquired in selected years.

Table 48
When Cultivator Bought

Year Bought	1966	65	64	63	62	61	60	55-59	Before 55	No Ans.	Total
Number	35	27	32	18	25	19	31	37	23	19	266
Percentage	13.2	10.2	12.0	6.8	9.4	7.1	11.7	13.9	8.6	7.1	100

Table 49 shows the number of cultivators bought using selected methods of finance.

Table 49
How Cultivator Bought

How Bought	Cash	FIL	Loan C.U.	Loan Bank	Co. Fin.	Terms Dlr.	In-herited	No Other	Ans.	Total
Number	172	42	1	4	7	3	0	0	37	266
Percentage	64.7	15.8	.4	1.5	2.6	1.1	0	0	13.9	100

Table 50 shows the number of cultivators reported with selected value.

Table 50
Cultivator Value

Value	Less 100	100-200	201-400	401-700	701-1000	1001-1500	1501-2000	2001-2500	More 2500	No Ans.	Total
Number	76	31	55	55	20	9	1	3	0	16	266
Percentage	28.6	11.7	20.7	20.7	7.5	3.4	.4	1.1	0	6.0	100

Table 51 shows the number of additional cultivators with selected values.

Those included in this table would report more than one cultivator on their farm.

Table 51
Additional Cultivators

(dollars) Value, other cultivators	Less 100	100-200	201-400	401-700	701-1000	1001-1500	1501-2000	2001-2500	More 2500	No Ans.	Total
Number	6	3	3	2	0	1	0	0	0	251	266
Percentage	2.3	1.1	1.1	.8	0	.4	0	0	0	94.4	100

Table 1. Summary of the results of the analysis of variance for the different factors.

Source of variation		Sum of squares	D.F.	Mean square	F-value	Prob.
Between groups	1	10.5	1	10.5	1.5	0.25
Within groups	2	12.5	1	12.5	1.5	0.25
Total	3	23.0	2			

Source of variation		Sum of squares	D.F.	Mean square	F-value	Prob.
Between groups	1	10.5	1	10.5	1.5	0.25
Within groups	2	12.5	1	12.5	1.5	0.25
Total	3	23.0	2			

Table 2. Summary of the results of the analysis of variance for the different factors.

Source of variation		Sum of squares	D.F.	Mean square	F-value	Prob.
Between groups	1	10.5	1	10.5	1.5	0.25
Within groups	2	12.5	1	12.5	1.5	0.25
Total	3	23.0	2			

Table 3. Summary of the results of the analysis of variance for the different factors.

Source of variation		Sum of squares	D.F.	Mean square	F-value	Prob.
Between groups	1	10.5	1	10.5	1.5	0.25
Within groups	2	12.5	1	12.5	1.5	0.25
Total	3	23.0	2			

Conclusions arrived at from tables 45 to 51 in respect to cultivators:

- 1) The large wing type cultivator is not in general use.
- 2) Many cultivators are bought as used machines to keep overhead down.
- 3) Not as many early vintage cultivators are in use as other machines.

This reflects the acceptance by farmers of heavy duty cultivators.

- 4) Cultivators made by manufacturers other than the "full line" companies are acceptable to farmers.

SWATHERS

The following tables show the number of swathers reported as to width, make, age and value in the survey. No attempt was made to distinguish between the self-propelled and pull type.

Table 52 shows the number of swathers with selected width of cut.

Size	Table 52 Swather Width						No Ans.	Total
	12' or less	14	15	16	18	20		
Number	90	6	64	29	14	4	59	266
Percentage	33.8	2.3	24.1	10.9	5.3	1.5	22.2	100

No attempt was made to distinguish between self-propelled and pull-type swathers when this data was tabulated.

Table 53 shows the number of swathers reported of selected makes.

Make	Table 53 Swather Make						Cock-Versa-		No		Total
	CCIL	JD	MF	IHC	Case	MM	shutt	tile	Other	Ans.	
Number	23	17	51	23	15	9	45	25	4	54	266
Percentage	8.6	6.4	19.2	8.6	5.6	3.4	16.9	9.4	1.5	20.3	100

Table 54 shows the proportion of makes of swathers owned by union members and the proportion owned by those not union members.

Table 54
Proportionate Ownership

Make	CCIL JD		MF	IHC	Case	MM	Cock-Versa-shutt tile		No Other Ans.	Total
SFU member	82.6	58.8	72.5	56.5	40.0	44.4	71.1	64.0	50.0	63.2
Non-member	17.4	41.2	27.5	43.5	60.0	55.6	28.9	36.0	50.0	36.5
No answer	0	0	0	0	0	0	0	0	1.9	.4
Total	100	100	100	100	100	100	100	100	100	100

Table 55 shows the number of swathers reported new in selected years.

Table 55
Swather Age

Year new	1966	65	64	63	62	61	60	55- 59	Before No 55	Ans.	Total
Number	22	25	16	10	7	6	11	36	67	66	266
Percentage	8.3	9.4	6.0	3.8	2.6	2.3	4.1	13.5	25.2	24.8	100

Table 56 shows number of swathers reported bought in selected years.

Table 56
When Swather Bought

Year bought	1966	65	64	63	62	61	60	55- 59	Before No 55	Ans.	Total
Number	44	39	31	21	9	9	9	23	25	56	266
Percentage	16.5	14.7	11.7	7.9	3.4	3.4	3.4	8.6	9.4	21.1	100

Table 57 shows the number of swathers bought with selected methods of finance.

Table 57
How Swather Bought

How bought	Cash	FIL	Loan C.U.	Loan Bank	Co. Fin.	Terms Dlr.	In-herited	No Other	Ans.	Total
Number	148	37	3	7	3	1	0	0	67	266
Percentage	55.6	13.9	1.1	2.6	1.1	.4	0	0	25.2	100

Table 58 shows the number of swathers reported with selected value.

Table 58											
Value of Swathers											
(dollars)	Less	100-	201-	401-	601-	801-	1001-	1501-	More	No	
Value	100	200	400	600	800	1000	1500	2000	2000	Ans.	Total
Number	67	27	34	17	18	26	12	10	3	52	266
Percentage	25.2	10.2	12.8	6.4	6.8	9.8	4.5	3.8	1.1	19.5	100

Table 59 shows the number of additional swathers reported with selected values. All those included in this table reported more than one swather.

Table 59											
Value of Additional Swathers											
(dollars)	Less	100-	201-	401-	601-	801-	1001-	1501-	More	No	
Value of other Swathers	100	200	400	600	800	1000	1500	2000	2000	Ans.	Total
Number	2	1	0	4	0	1	0	1	0	257	266
Percentage	.8	.4	0	1.5	0	.4	0	.4	0	96.6	100

Conclusions reached from tables 52 to 59 in respect to swathers:

- 1) Approximately 20% of farmers do not own a swather.
- 2) Many farmers are buying used swathers.
- 3) 12 and 15 ft. are the most popular size.
- 4) Proportionately, union members own more CCIL swathers.

COMBINES

The following tables show the number of combines reported as to size, make, age and value reported in the survey.

Table 60 shows the number of combines of selected sizes.

Table 60											
Size of Combine											
Size	PTO			Pull with Motor			S.P.			No	Total
	Small	Med.	Large	Small	Med.	Large	Small	Med.	Large	Ans.	
Number	12	26	11	7	5	1	24	116	16	48	266
Percentage	4.5	9.8	4.1	2.6	1.9	.4	9.0	43.6	6.0	18.0	100

Table 61 shows the proportion of size of combines reported by union members and those not members.

Table 61
Proportionate Ownership

Size	PTO			Pull with Motor			SP			No	
	Small	Med.	Large	Small	Med.	Large	Small	Med.	Large	Ans.	Total
SFU Member	58.3	57.7	54.5	28.6	40.0	100.	41.7	75.0	87.5	50.0	63.2
Non-Member	41.7	42.3	45.5	71.4	60.0	0	58.5	25.0	12.5	47.9	36.5
No Answer	0	0	0	0	0	0	0	0	0	21	.4
	100	100	100	100	100	100	100	100	100	100	100

No attempt was made to distinguish in other combine tables the different size or type of machine.

Table 62 shows the number of combines reported of selected makes.

Table 62
Combine Make

Make	CCIL JD		MF	IHC	Case	MM	Cock-Versa-shutt tile		No	Other	Ans.	Total
Number	8	34	91	15	20	9	40	6	2	41	266	
Percentage	3.0	12.8	34.2	5.6	7.5	3.4	15.0	2.3	.8	15.4	100	

Table 63 shows the number of combines reported to be new in selected years.

Table 63
Combine Age

Year New	1966	65	64	63	62	61	60	55- Before No		Ans.	Total
Number	21	20	19	9	9	7	6	37	87	51	266
Percentage	7.9	7.5	7.1	3.4	3.4	2.6	2.3	13.9	32.7	19.2	100

Table 64 shows the number of combines bought in selected years.

Table 64
When Combine Bought

Year bought	1966	65	64	63	62	61	60	55- Before No		Ans.	Total
Number	52	45	28	27	8	3	10	25	26	42	266
Percentage	19.5	16.9	10.5	10.2	3.0	1.1	3.8	9.4	9.8	15.8	100

Table 65 combines tables 63 and 64 to show proportion of combines new in 1964-66, 61-63, and before 1961; and the number bought in those years.

Table 65
Combine Purchases Pattern

Years	1964-66	1961-63	Before 1961	No Answer	Total
Percentage new	22.5	9.4	48.9	19.2	100
Percentage bought	46.9	14.3	23.0	15.8	100

It appears as though about 50% of farmers buy used combines and some of them do not know when the used machine was new.

Table 66 shows the number of combines bought with selected source of finance.

Table 66
How Combine Bought

How bought	Cash	FIL	C.U.	Loan	Co.	Fin.	Terms, In-	No	Ans.	Total
Number	81	85	10	11	19	5	0	0	55	266
Percentage	30.5	32.0	3.8	4.1	7.1	1.9	0	0	20.7	100

Table 67 shows the number of combines reported with selected values.

Table 67
Combine Value

(dollars) Value	Less 500	501- 1000	1001- 1500	1501- 3000	3001- 4000	4001- 5000	5000 7000	7000 10000	10000 10000	More No	Ans.	Total
Number	40	45	20	56	18	11	23	12	0	41		266
Percentage	15.0	16.9	7.5	21.1	6.8	4.1	8.6	4.5	0	15.4		100

Table 68 shows the number of additional combines reported with selected values. Those included in this table reported more than one combine.

Table 68
Value of Additional Combines

(dollars) Value of other	Less 500	501- 1000	1001- 1500	1501- 3000	3001- 4000	4001- 5000	5000 7000	7000 10000	10000 10000	More No	Ans.	Total
Number	1	8	0	3	0	0	0	0	0	254		266
Percentage	.4	3.0	0	1.1	0	0	0	0	0	95.5		100

Table 69 compares the number of quarters operated and size of combine used.

Table 69
Size of Farm and Combine

Size of Combine	PTO			P & M			SP			No	
	Small	Med.	Lg.	Small	Med.	Lg.	Small	Med.	Lg.	Ans.	Total
1 quarter	2	1	0	0	0	0	0	2	0	10	15
2	6	1	0	1	2	0	6	24	0	11	51
3	1	5	0	5	1	0	7	22	1	10	52
4	2	7	1	0	1	1	4	24	1	6	47
5	1	8	1	0	1	0	3	10	1	7	32
6	0	2	3	1	0	0	1	10	5	2	24
7	0	0	0	0	0	0	2	6	3	0	11
8	0	0	2	0	0	0	1	7	1	1	12
More than 8	0	2	4	0	0	0	0	11	4	1	22
Total	12	26	11	7	5	1	24	116	16	48	266

Conclusions reached from Tables 60-69:

- 1) The combine in most common use is an older SP model.
- 2) Farmers are buying used machinery to keep down overhead.
- 3) FIL is an important source of finance for combines.
- 4) 46.6% of combines were seven or more years old.
- 5) Approximately 15% of farmers do not have a combine.

BALERS

The following tables show the size, make, age and value of balers reported in the survey.

Table 70 shows the number of balers of selected sizes.

Table 70
Baler Size

Size	Small	Med.	Large	No Answer	Total
Number	5	117	0	144	266
Percentage	1.9	44.0	0	54.1	100

. A small baler was considered to be a roto tie machine or one making a round bale.

. A medium baler was considered to be a PTC twine tie machine.

. A large baler was considered to be a baler with a motor as part of the machine.

Table 71 shows the number of balers of selected makes.

Table 71 Make of Baler										
Cock-New No										
Make	JD	MF	IHC	Case	shutt	Holl.	Ford	Other	Ans.	Total
Number	15	19	34	7	8	30	0	9	144	266
Percentage	5.6	7.1	12.8	2.6	3.0	11.3	0	3.4	54.1	100

Table 72 shows the number of balers new in selected years.

Table 72 When Baler New											
55- Before No											
Year New	66	65	64	63	62	61	60	59	55	Ans.	Total
Number	13	5	12	20	19	12	7	15	11	152	266
Percentage	4.9	1.9	4.5	7.5	7.1	4.5	2.6	5.6	4.1	57.1	100

Table 73 shows the number of balers bought in selected years.

Table 73 When Baler Bought											
55- Before No											
Year bought	66	65	64	63	62	61	60	59	55	Ans.	Total
Number	21	13	18	18	22	8	5	12	4	145	266
Percentage	7.9	4.9	6.8	6.8	8.3	3.0	1.9	4.5	1.5	54.5	100

Table 74 combines tables 72 and 73 to compare when balers were bought and when they were new.

Table 74 Baler Purchase Pattern					
Years	64-66	61-63	Before 61	No Answer	Total
Percent new	11.3	19.1	12.3	57.1	100
Percent bought	19.6	18.1	7.9	54.5	100

PTO twine tie balers have not been on the market as many years as other kinds of machines, but the pattern of purchasing used balers begins to emerge. Probably about 4% of balers purchased in 1964-66 were new before 1961 (table 74).

Table 75 shows the number of balers bought using selected credit sources.

Table 75 How Balers Bought										
How bought	Cash	FIL	Loan C.U.	Loan Bank	Co. Fin.	Terms Dlr.	In-herited	No Other	Ans.	Total
Number	65	25	1	9	9	4	0	0	153	266
Percentage	24.4	9.4	.4	3.4	3.4	1.5	0	0	57.5	100

Table 76 shows the number of balers reported with selected values.

Table 76 Baler Values											
(dollars)	Less 100	100-200	201-300	301-400	401-600	601-1000	1001-1500	1501-2000	More 2000	No Ans.	Total
Value	100	200	300	400	600	1000	1500	2000	2000		
Number	7	4	5	6	15	46	36	3	0	144	266
Percentage	2.6	1.5	1.9	2.3	5.6	17.3	13.5	1.1	0	54.1	100

Table 77 shows the number of respondents reporting other haying equipment of selected values. Included in this table would be machines such as mowers, rakes, forage harvesters, wagons, etc.

Table 77 Other Haying Equipment Values											
Value, Other Haying Machines	Less 200	201-400	401-600	601-800	801-1000	1001-1500	1501-2000	2001-2500	More 2500	No Ans.	Total
Number	53	45	22	12	6	3	1	2	3	119	266
Percentage	19.9	16.9	8.3	4.5	2.3	1.1	.4	.8	1.1	44.7	100

Conclusions from tables 70-77:

- 1) That PTO twine tie balers are the most popular.
- 2) Fewer farmers bought used balers than some other machines -- probably because used balers were not available.

3) FIL is an important source of finance for balers.

4) Investment in balers is fairly high compared to reported livestock sales.

5) Approximately 10% of those with haying equipment do not have a baler.

OTHER EQUIPMENT:

Table 78 shows the number of respondents with other machinery of selected values not included in previous tables. This would include machines such as rod weeder, sprayers, one-ways, plows, front end loaders, rock pickers, etc.

Table 78
Other Equipment Value

Value (dollars)	Less 500	500- 1000	1000- 2000	2001- 3000	3001- 5000	5001- 7000	7001- 10000	10001- 15000	15000- More	No Ans.	Total
Number	150	59	32	10	3	2	0	0	0	10	266
Percentage	56.4	22.2	12.0	3.8	1.1	.8	0	0	0	3.8	100

Table 79 shows the number of respondents with selected total investments in farm machinery.

Table 79
Total Investment in Farm Machinery

(dollars)	Less	5001-	10001-	15001-	20001-	25001-	30001-	35001-	More	No	
Value	5000	10000	15000	2 000	5000	10000	35000	40000	40000	Ans.	Total
Number	84	98	37	26	16	3	1	1	0	0	266
Percentage	31.6	36.8	13.9	9.8	6.0	1.1	.4	.4	0	0	100

Table 80 shows proportionate number of union members and those not members who have selected amounts of total investment in farm machinery.

Table 80
Comparative Total Investment in Farm Machinery - SFU members
and other farmers

[illegible]

Conclusions from tables 78-80:

- 1) Nearly 70% of farmers have investments in machinery of less than \$10,000.
- 2) Less than 25% of farmers have investments in machinery of between \$10,000 and \$20,000.
- 3) Less than 1% of farmers have investments in machinery of more than \$30,000.
- 4) Farmers have not over-capitalized in farm machinery, but are keeping investment in land and machinery in balance.
- 5) Union members have proportionately more invested in machinery than those not members.

One series of questions in the questionnaire used in the survey was to find out the extent of co-operative use, or use in partnership, or renting of machinery. The following tables show the replies.

Table 81 shows the number of respondents who use machinery in partnership.

Table 81
Use of Machinery in Partnership

	Use it	Do not	No answer	Total
Number	128	129	9	266
Percentage	48.1	48.5	3.4	100

Table 82 shows the number of respondents who use machinery co-operatively.

Table 82
Use Machinery Co-operatively

	Use it	Don't	No answer	Total
Use Machinery Co-operatively	23	200	43	266
Percentage	8.6	75.2	16.2	100

Although the survey shows 8.6% of farmers use machinery co-operatively, we believe as a result of our analysis, the machines are really used in partnership.

Table 83 shows the number of respondents who rent machinery.

Table 83
Machinery Rentals

Rent Machinery	Do	Don't	No Answer	Total
Number	6	250	20	266
Percentage	2.3	90.2	7.5	100

Conclusions from tables 81-83:

- 1) Approximately half of the farmers use machinery in partnership.
- 2) Very few farmers use machinery co-operatively.
- 3) Very few farmers rent machinery.

Although no attempt was made to tabulate the machines used in partnership we can say that in the majority of cases only one machine of a minor nature such as a front end loader, a field sprayer or rock picker would be involved. In some cases it would be a baler. In a few cases a combine was the machine.

It appears as if farmers are not using partnership arrangements to keep overhead down, but rather individual use of used machinery.

Included in the questionnaire was a question as to whether respondents had ever used machinery in partnership, and if so, why the arrangement was discontinued. The results were not tabulated, but there were a number of reasons given, and the main ones are:

- 1) Both wanted machines at the same time.
- 2) When I wanted it, it needed repairs.
- 3) Partner no longer farming.
- 4) Was able to buy my own.

Partnership arrangements will be satisfactory only if two conditions are met, namely, the desire and the need. The need can be demonstrated from

from the tables above. The desire can be created only through the understanding of the need.

One major exception is three brothers who use their total machines in partnership. They operate a total of 19 quarter sections, have two large tractors, two combines, two swathers, two new 22-ft. cultivators and other equipment. They sell approximately 30 head of cattle a year and each has only \$8,500 total investment in farm machinery. We cite this example as an indication of what can be done if people want to work together in order to keep overhead down. We observe that farmers elsewhere, not included in the survey, are using partnership arrangements, and it seems to be working out satisfactorily.

CUSTOM WORK

The following tables show the number of quarters operated, when first and last quarters acquired, by those doing custom work.

Table 84 shows the number and proportion of persons doing custom work who operate selected numbers of quarters.

Table 84
Size of Farm and Custom Work

No. of Quarters	1	2	3	4	5	6	7	8	8+	Total
Do custom work	1	9	14	11	7	4	3	2	6	57
Percent	6.7	17.6	26.9	24.4	21.9	16.7	30.0	16.7	27.3	21.7
Do not do custom work	14	42	38	34	25	20	7	10	16	206
Percent	93.3	82.4	73.1	75.6	78.1	83.3	70.0	83.3	72.7	78.3

Table 85 shows the number and proportion of persons doing custom work who acquired their first quarter in selected years.

Table 85

Year First Quarter Acquired and Custom Work

Year First Quarter Acquired	Before 1920	20- 30	31- 40	41- 45	46- 50	51- 55	56- 60	61- 64	64+	Total
Do custom work 1		3	7	6	8	12	14	5	1	57
Percent	14.3	17.6	18.9	16.2	15.7	32.4	32.6	23.8	12.5	22.1
Do not do custom work	6	14	30	31	43	20	29	16	7	20.1
Percent	85.7	82.4	81.1	83.8	84.3	67.6	67.4	76.2	87.5	77.9

and

Table 86 shows the number/proportion of persons doing custom work

who acquired their last quarter in selected years.

Table 86

Year Last Quarter Acquired and Custom Work

Year Last Quarter Acquired	Before 1920	20- 30	31- 40	41- 45	46- 50	51- 55	56- 60	61- 64	64+	Total
Do custom work	0	0	3	1	4	3	13	18	15	57
Percent	0	0	27.3	8.3	17.4	13.0	28.3	23.7	24.6	22.2
Do not do custom work	2	3	8	11	19	20	33	58	46	200
Percent	100	100	72.7	91.7	82.6	87.0	71.7	76.3	75.4	77.8

Conclusions reached from tables 84-86:

- 1) Size of farm doesn't appear significant in determining whether a farmer does custom work or not.
- 2) Proportionately more of those acquiring their first quarter between 1950 and 1960 do custom work.
- 3) Those doing custom work are mainly those who have acquired their last quarter in the last ten years.

It appears generally that the younger farmer is the one doing custom work.

The following tables describe those having custom work done. Table 87 shows the number and proportion of persons having custom work done who operate selected numbers of quarters.

Table 87
Size of Farms Having Custom Work Done

Number of Quarters	1	2	3	4	5	6	7	8	8+	Total
Have work done	9	25	20	15	10	5	2	4	8	98
Percent	60.0	49.0	40.8	33.3	32.3	20.8	20.0	33.3	38.1	38.0
Don't have work done	6	26	29	30	21	19	8	8	13	160
Percent	40.0	51.0	59.2	66.7	67.7	79.2	80.0	66.7	61.9	62.0

Table 88 shows the number and proportion of persons having custom work done who acquired their first quarter in selected years.

Table 88
Year First Quarter Acquired and Has Custom Work Done

Year First Quarter Acquired	Before 1920	20- 30	31- 40	41- 45	46- 50	51- 55	56- 60	61- 64	64+	Total
Have work done	4	7	16	12	20	13	16	7	1	96
Percent	57.1	41.2	43.2	36.4	39.2	35.1	38.1	33.3	12.5	37.9
Don't have work done	3	10	21	21	31	24	26	14	7	157
Percent	42.9	58.8	56.8	63.6	60.8	64.9	61.9	67.7	87.5	62.1

Table 89 shows the number and proportion of people who have custom work done, who acquired their last quarter in selected years.

Table 89

Year Last Quarter Acquired	Before 1920	20- 30	31- 40	41- 45	46- 50	51- 55	56- 60	61- 64	64+	Total
Have work done	0	2	6	6	8	10	20	25	19	96
Percent	0	66.7	54.5	60.0	34.8	45.5	44.4	33.3	31.1	38.1
Does not have work done	2	1	5	4	15	12	25	50	42	156
Percent	100	33.3	45.5	40.0	65.2	54.5	55.6	66.7	68.9	61.9

Conclusions reached from tables 87-89:

- 1) Proportionately more of those having custom work done have three quarters or less.
- 2) People in all age groups have custom work done.

In its submission to you on March 30, 1967, the Saskatchewan Farmers Union said that in 1964, 65, 66, twenty-six, twenty-nine and thirty-seven respondents respectively had custom grain harvesting done. Analyses show that a total of thirty-nine respondents had custom combining done in one or more of those years. Of these, sixteen said they had a combine, and twenty-three said they did not, at the time the survey was conducted. We have made no attempt to determine what year their combine was bought. We assume that some of those who have combines, hired work done because of a variety of circumstances including delays in receiving repair parts. Some of the reported grain harvesting hired done was, no doubt, swathing.

The tables above give a picture of farming in Saskatchewan. It is evident that some of the farms covered in the survey will not survive as units past their present occupant. We are not suggesting they should. Many are far too small, with insufficient resources in both land and capital.

These tables show no evidence of any attempt by machine companies to integrate agricultural production into their own. They point out, however, the tremendous scope of change necessary if Ford of Canada's prediction of the 250 HP tractor being in general use in not too many years, becomes a reality.

Appearing before the commission, a spokesman for IHC said, "...the factors of farm demand, I would say, almost dictate the sizes we have available..." (page 3686). We must admit that, to a degree, we agree, in terms of width of cut

For the purpose of the present study

the following data were collected from the

questionnaire

and the results are given in the

following table

Table I. Results of the questionnaire

The following table shows the results of the

questionnaire for the purpose of the present

study. The results are given in the

following table

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for certain conditions, or tractor axel width or height. But we do not accept it as an over-all principle. We do accept as a principle that which is implied but not said by spokesmen for New Holland (p.3219) that profit is the determining factor. This is management's decision.

We do not know the length of time required to put on the market a product that began with an idea, such as the 250 HP tractor. Clearly such demand is not coming from those covered in the Saskatchewan survey, but from the needs of the manufacturer as seen by management. Having made a decision to build it, management must make further decisions on how it can be used and how it is to be sold to the public. Once this is done and a few farmers accept it and find it economical, the remainder must, or perish, under conditions as they exist in Canada today.

A spokesman for International Harvester Company said (p.3645), "The primary objective of research and development is to keep pace and possibly lead in agricultural evolution." The pressure of evolution in agriculture has been constantly increasing; part at least has been caused by research done by farm machinery companies. The tables above indicate that if the pressure is not regulated, farmers as a group may not be able to evolve with it and be swamped in the process.

Distribution of Farm Machinery

Farm machinery acts in the three prairie provinces require that a manufacturer of farm machinery offering machines for sale must appoint a provincial distributor who undertakes to maintain repair parts for ten years. The impression is left in the transcript of hearings with the major companies, that machinery could be distributed and serviced without a provincial distributor.

While this may be true of major companies, the removal of this section of the act could leave the door open for fly-by-night operations. Farmers do not believe this to be any obstacle to reliable suppliers.

One small manufacturer in Saskatchewan said that his provincial distributor was his market. He was not anxious to set up a sales organization. His capital was limited and was interested only in manufacturing a quality product.

A high percentage of farm machinery used in Canada is manufactured outside of Canada and brought in. In our opinion, Canada can do very little, if anything, to influence manufacturing costs outside our borders. The commission must consider matters under Canadian control and in this respect distribution holds the spotlight.

As we understand the distribution system, it works in this way. Machines are manufactured in Canada, or are brought in by the Canadian subsidiary of the parent firm; the branch office gets the machine from the subsidiary or company; the local dealer gets the machine from the branch office. The farmer gets it from the dealer.

In many instances the actual machine moves from the foreign factory direct to the dealer with subsidiary and the branch doing only the paper work.

Theoretically, the company sells to the dealer, who sells to the farmer. We question if this situation really exists, but are of the opinion that dealers are under more direct control by their companies than the companies care to admit.

Farmers tell us of instances where the blockman and the dealer have come to see them together about selling machines. Dealing is done by the blockman, and the dealer is stuck with the deal. We know of at least one instance where an

agreement had been made between a farmer and his dealer for a baler. No trade-in was involved. It was a cash deal. Yet the company blockman refused to let the deal go through and the farmer bought a different baler.

It is of interest that IHC is now assisting company employees to become dealers. The arrangement is that the dealership is incorporated with 25% of shares owned by the new dealer and 75% of shares owned by the company (p.3441 and p.3506). The expressed hope is that the dealer will buy back the shares owned by IHC over time.

It is too much to believe that this is an independent dealership. We suggest that the commission should determine if any of these dealers have as yet acquired control of 51% or more of the shares.

We have observed that a number of former John Deere employees have become dealers in some of the larger dealerships. We have no information on the circumstances under which their business is established. Perhaps John Deere has a program similar to IHC.

Form A contracts must be completed when a new machine is sold in Saskatchewan, and the terms of the sale are recorded. The contract is signed by the purchaser, his signature witnessed by the dealer and is "accepted" or signed by an official in the branch office of the company. The contract is then mailed back to the purchaser. We file with you two such contracts, one for the purchase of a tractor and drill, the second for a cultivator. The question really is: How independent is the dealer?

All of the companies who have appeared before you have given high priority to top quality dealerships, to the success of the company. They have expressed difficulty in recruiting men of the calibre required, who are prepared and able to provide the capital and skills necessary.

Schumpeter's theory of creative destruction, referred to earlier, seems to have overtaken the farm machinery dealer. His independence is proclaimed in public ritual, but in practice the increasing power of final decision is vested in the company.

Submissions made to you by farm groups have laid before you evidence of poor service on repair parts, poor performance in respect to warranty, poor quality in new machinery. Generally the dealer has been credited with doing his best in all circumstances. This is understandable as the dealer is usually a personal friend of his customer. It is the farmer's opinion the source of these problems is the machine company itself-- with whom, theoretically, the farmer is not dealing.

The time is fast approaching, if not already here, when a new approach must be taken in the principle of distribution and servicing of farm machinery. Distribution and sales can be the part for which the company is responsible, and servicing by someone else. This principle would allow the individual to concentrate his efforts and his energy where he has competence. The major full-line companies could establish their sales outlets for their products, including repairs, use their own competence and facilities. The short-line companies could work with their provincial distributors in establishing sales outlets.

Servicing of machines could be done similarly to the way cars are serviced, by those most competent to do so. Present day, so-called dealers' facilities are primarily designed as service and repairing centres, and should be the people to provide it. Service under warranty could be on a contractual basis between the sales centre and the service centre.

The principles expressed above have obvious advantages:

- 1) Provision of inventory and stocks would be under the direct control of the company.
- 2) Modern and most economical methods of communication and transportation could be employed.
- 3) Inventory of used equipment could be moved from one area to another, in a similar pattern to that now used by CCIL.
- 4) Locally generated service capital would remain in a community in the form of facilities, and not transferred to the companies in the form of inventory in the hands of the dealer.
- 5) Companies would be required to compete for the sale of new equipment.
- 6) Local servicemen would be required to compete for service offered.

Their skills would continuously require up-grading.

- 7) Development of co-operative service centres would be encouraged.
- 8) Public financing programs could be developed, designed to establish adequate local service centres.

CREDIT

Tabulation of the survey conducted by the SFU and prepared in table form in this submission show the most common sources of financing of machinery are cash or FIL. Farm improvement loans are used mainly for the more expensive machines such as tractors and combines.

As a matter of principle, the NFU regards credit as a means of transferring productive resources from one party to another. The terms of the transfer should reflect the productive value of the resource. Resources transferred should

return to the receiver the amount he paid, during the expected time the resource will be used, plus interest on his investment. If it doesn't, he has either paid too much or the condition of the industry is such that capital should not be attracted to it in the normal business sense.

A study by John Dawson, prepared for the Economic Council of Canada, entitled "Changes in Agriculture to 1970" quotes a working paper prepared for the Royal Commission on Banking and Commerce: "The tendency in Canada for farmers to provide such a large proportion of their own financing (92% in the 1958 DBS survey) represented the influence of several factors...

"If all farmers in Canada had to finance 92% of their investment, there would be little progress in expansion and improvement of farm enterprises except for those infrequent periods when farm incomes were relatively high. For example, the period 1946 to 1953 was one of rapid expansion of farm enterprises financed substantially from income, especially in the prairies, and the momentum of this expansion carried forward through most of the 1950's. Yet such ability to finance development by farm income was unlikely to recur under current agricultural conditions, barring war or other special circumstances. This meant there could be only limited development in agriculture unless more financing was to be done on credit..."

If we look at maximum amounts available through FIL, we find that it has been increased several times to a limit of \$15,000. Increases have been considered necessary as agriculture has not created within itself sufficient capital to finance its own expansion. During this time, productivity has increased substantially. Benefits of increased productivity have been passed on to others.

Public credit programs are designed to bring about a desired social objective. Farm improvement loans came into being to encourage the mechanization of agriculture. There are two schools of thought among farmers as to whether or not its present limit is sufficient.

On the one hand, if food is to be produced on larger and larger farms, and there are those who accept this as desirable, then the maximum should be raised, perhaps the lid removed completely. On the other hand, if food is to be produced on the kinds of farms revealed in the SFU survey, the present maximum is adequate.

The NFU believes that, unless steps are taken in ways other than FIL and other credit programs, the maximum should be raised, or the machine companies will simply become the source of credit for the sale of machines, with interest rates well above FIL rates.

LAND VALUES

Land values have shown a marked upward adjustment in price, particularly in the last few years. A report published in March, 1967, by the Economics and Statistical Branch, Saskatchewan Department of Agriculture, and prepared by J. A. Brown and H. Barber, gives the extent of and the reasons for the increase. They say, "A review of the major factors in the land market suggests that there will likely continue to be an upward pressure on land prices in the future." (p.26). They raise the question, "whether increased yields and favorable markets can continue to absorb the squeeze between rising costs and relatively stable grain prices." (page 22).

Land prices should reflect the productivity of the soil. A portion of the increased price must be attributed to increased productivity through the application of new technology.

Increasing costs of farm machinery have decreased marginal returns from machinery in relation to land. Consequently farmers tend to invest in land rather than machinery, and land prices have been forced upward.

Investors have entered the land market as a hedge against inflation, and as a means of seeking capital gains. Most would have no intention of working this land, but their activity has added to the demand already present.

In our opinion, the greatest single factor has been the activity of the Farm Credit Corporation.

Immediately after the war, many present-day farmers became established with the assistance of the Veterans Land Act. One of the objectives of VLA was to do just this. The veteran was required to get an offer to sell in writing from its owner and the price at which he was willing to sell. An appraiser from VLA would appraise the land for its productive value and determine if the asking price represented its productive value. Under no circumstances would VLA pay more than its worth. The parcel of land was security for the loan. Its activity put no pressure on land prices but served rather as a regulatory body. It did accomplish the transfer of land from one generation to the other.

Compare it with the activity of FCC. The corporation is able to loan up to \$55,000 under supervision. A farmer applies for a loan to buy land. His application is considered not on the land but on whether there is sufficient security for the loan. The parcel of land the loan is intended to buy is not security enough. Consequently those without assets, especially young people, are deprived of the use of this credit program.

We consider the social objective of FCC to be the opposite of the VLA. VLA was designed to get people on the land and FCC designed to get people off.

It works in this way:

- 1) FCC will loan more than the productive value of the land bought.
- 2) The seller is encouraged to sell as he receives more than its productive value.
- 3) FIL is available to purchase larger machinery to operate the acquired land.
- 4) Other social programs are available to the seller-- National Housing, Unemployment Insurance, Workmen's Compensation, Minimum Wages, etc.
- 5) Capital is transferred out of the public treasury with the sale and recovered from agriculture as repayment is made.

Farmers who have used FCC loans to expand their acreage are able to spread the capitalization over the acreage they already have. Some of this was at lower prices prior to the introduction of new technology leading to increased productivity and does not place an undue burden on the farmer.

The picture alters completely if a farm is totally capitalized at present land values. The fewer number of people acquiring their first quarter after 1960 as shown in Table 3 is an indication of young people realizing this.

Coupled with this is the continuous pressure from many sources of the need for farmers to expand, increased pressure for efficiency, increased pressure for the belief the way to resolve the cost price squeeze is to produce more.

TESTING

Farmers' organizations appearing before you have recommended that machinery should be tested by a public agency for performance and durability.

Machine companies have said they consider their tests to be adequate and public testing would simply be a duplication of what is already done.

As we interpret the feeling of the commission based on transcripts of the hearings, you seem to be leaning toward the principle of establishing a standard test prepared by a neutral body. Companies test their machines using the standard test and publish the results.

It is our view that a performance and durability test can only be meaningful if done by a neutral body and its findings made public. In order to make certain it remains neutral, it must be done by the public sector, financed by public monies and responsible to the public through a minister of the crown.

The province of Saskatchewan conducted such tests for several years. The survey conducted by the Saskatchewan Farmers Union asked the question whether the respondent was aware of the work of Agricultural Machinery Administration and if they received the bulletins, and if bulletins were useful.

The results are shown in the following tables.

Table 90 shows the number and percentage who were aware of the work of AMA.

<u>Table 90</u> <u>Awareness of AMA</u>				
Aware of work of AMA	Yes	No	No Ans.	Total
Number	147	99	20	266
Percentage	55.3	37.2	7.5	100

Table 91 shows the number and percentage of respondents that received AMA bulletins.

<u>Table 91</u> <u>Received AMA Bulletins</u>				
Received AMA Bulletins	Yes	No	No Ans.	Total
Number	87	98	81	266
Percentage	32.7	36.8	30.5	100

Table 92 shows the number and percentage of respondents who thought bulletins to be useful.

Thought Bulletins Useful	Table 92 Usefulness of AMA Bulletins			Total
	Yes	No	No Ans.	
Number	89	28	149	266
Percentage	33.5	10.5	56.0	100

Over 55 per cent of farmers were aware of the work of AMA, 32.7 per cent received the bulletins and 33.5 per cent thought them to be useful. (tables 90-92).

Evidence has been presented to you by farmers indicating inadequate testing. The only way a farmer has of knowing how a machine will perform is what he learns from his neighbors. Farmers have shown that the machines most difficult to get repair parts for are the newer ones and the older ones. When repair parts are hard to get for new machines, it indicates the manufacturer was not aware that a certain part was weak, either in material or in engineering.

Many times after a new model has been introduced and sold to farmers, the companies call the machine in for modifications or send out a "kit" to correct a weak spot. To a farmer this means inadequate testing of the prototype and/or the initial factory run. The farmer has had to cope with the weakness, through loss of time, work not being done when it should, and so on.

We recommend the establishment of a public agency by the government of Canada to:

- 1) Test the performance and durability of farm machinery offered for sale in Canada.
- 2) Publish and distribute the results of the tests.

- 3) Conduct the tests through regional branches in soil and crop conditions under which the machine will be used.
- 4) To be administered by a Board appointed from Agricultural Engineering Departments of Universities, and farmers who have been recommended by farm organizations.

STANDARDIZATION OF PARTS

Farmers appearing before you have recommended that more parts need to be standardized within companies and between companies. They have given examples, to name a few: Hydraulic couplings, knife sections and guards, belts, bearings, chains, wheels, universal joints, where standardization seems both possible and practical.

Companies appearing before you attempt to leave the impression they are doing what they can. We do not think they are. Ford would be one exception. They point out that nineteen major items have complete interchangeability between all models of their tractors. They say, "The advantages from the standpoint of parts stocking is tremendous." (p.3274)

What Ford of Canada is talking about here are major items. What farmers have been talking about are the smaller items.

In parts that the companies buy, such as bearings, farmers cannot see why the manufacturer's number cannot be used rather than a company part number. They cannot understand why hydraulic cylinder hose connecting threads cannot be the same.

Ford has recognized the advantages. Farmers are suggesting this same principle should be extended to other items.

TRAINING COURSES FOR SERVICING MACHINES

Many of those who have appeared before you have said the quality of mechanics in shops servicing farm machinery leaves much to be desired. Special tools and equipment are needed, especially in servicing modern tractors. Mechanical skills require continuous upgrading. In our opinion, more training facilities are needed.

One of the courses offered by the Saskatchewan Institute of Applied Arts and Sciences in Saskatoon is such a course. This, we understand, is the only course of its kind in Canada. The student is able to complete the course in two winters. Courses begin in October and end in April. In between the courses, the Institute finds employment for the student in an acceptable shop.

For several years, the enrollment limit was twenty-four and each course was completely enrolled. This past year, the enrollment limit was doubled and the space provided tripled. Unfortunately, the number of students applying was only forty-one. We suspect that young people are looking elsewhere for future employment as the potential income from employment in shops in rural communities, and living conditions in smaller centres, are less attractive than comparable employment opportunities in larger centres.

This situation exists, in our opinion, because of the lower levels of income in rural areas, and the inability of employers to pay a higher wage level.

NOISE LEVEL OF MODERN TRACTORS

Concern expressed by some witnesses before the Commission on the noise level of modern tractors complements public health authorities' concern

in some provinces. Reports show a growing number of tractor operators with impaired hearing.

We do not consider ourselves competent to discuss the subject in any detail. We are aware of many farmers wearing either ear muffs or ear plugs as precautions.

Tests show that, even though the accepted safety level is 90 decibels, the mean noise level of 21 tractors is substantially more than 100 decibels. (Are Tractors Noisy?" by J. K. Jensen, Fig. 4)

We present to you three papers dealing with noise level:

1) "Are Tractors Noisy?" by J. K. Jensen.

2) "Environmental Control of Cabs for Operator Comfort" by C. M. Henry and G. C. Zoerb.

3) "Control of Farm Tractor Intake and Exhaust Noise" by D. W. Rowley. These papers draw upon others that you may wish to obtain.

Jensen says that the public identifies power with noise, and concludes by saying that, "If tractor noise levels are understandably high from a physiological standpoint, an educational program is needed."

We would recommend that tractor manufacturers should be required to publish, in the operator's manual, what the noise level of the tractor is, and what the safety level for noise is. If the noise level is above the safety level, the manufacturer should recommend what precautions the operator should take.

CANADIAN CO-OPERATIVE IMPLEMENTS LIMITED

Canadian Co-operative Implements Limited manufactures and distributes machinery in western Canada. In addition, it imports some major machines from suppliers in Europe. Its sales outlets are under

sales and service managers, but the overall operation of the entire co-operative is under one management. It currently enjoys between 5 and 6 per cent of the prairie market (p.3737)

Tables appearing above demonstrate the following:

- a) Machines imported from Europe and distributed by CCIL are not generally accepted by farmers.
- b) Machines manufactured and distributed by CCIL are accepted by farmers.
- c) About one-half of farmers are members of CCIL.

We believe there are reasons for these trends. CCIL moves used machines from the south to the north where there is a larger market for used machines. Some farmers say they have never bought a new machine. We must assume some farmers are members of CCIL in order to buy used machines.

CCIL has found it difficult to maintain a continuity of supply of the machines it buys. Canadian and European supplies have come under the control of U.S. capital, and very shortly supplies were cut off. This is not surprising.

A study into the early developments of other co-operatives would show a similar pattern. What is now Federated Co-operatives Limited found years ago that in order to maintain supply it was necessary to develop its own mines for coal, its own mill for lumber, its own refinery for petroleum products, its own plants for chemicals and fertilizer. Ultimately, CCIL will have to do the same for more machines.

We do not underestimate the magnitude of undertaking to manufacture a tractor or combine. Large amounts of capital, know-how among technical people, all take time to accumulate. The potential market must be available. Sooner or later, farmers must attempt this, or accept the fact that CCIL's contribution will continue to be in smaller implements.

We fully expect the sales of machines manufactured by CCIL to grow. Diskers, swathers, cultivators, harrows, etc., have already made a strong impression on the market. Now that its depot system is practically complete and emphasis continues to be placed on service, more and more farmers will be attracted to it.

We feel confident that the principle of centralized control and direction will force others to follow suit. Schumpeter's theory of "creative destruction" applies here. If others don't follow, their foundations of distribution in western Canada will begin to erode away.

A canadian press report of a brief presented to you by Massey Ferguson Industries Ltd. says that the company defends the free enterprise system and adds the Canadian economy is based on the profit motive. The news story ends with a plea to farmers to assist the industry in pressing for "equitable freight rates" in Canada.

We have not seen Massey Ferguson's brief, nor a transcript of their discussions with you. However, it seems to us that the officers of Massey Ferguson are being very inconsistent, in that they defend the profit motive for themselves and at the same time imply that it is bad when the carriers of freight follow the same motive. They seem to feel what is sauce for the goose should not be sauce for the gander.

According to a news story appearing in the Saskatoon Star Phoenix, Saskatoon city council called tenders for tire prices for the next two years. A tender from Dunlop Tire Sales Company offering up to 53 per cent discount on list price was accepted by council. Delivery of the tires is to be taken as required.

Discounts on list price are as follows:

Truck and heavy equipment	53%
Car	46%
Retreads for both types	45%

According to the news story, costs to the city of Saskatoon average about \$9,000 per year, for tires.

Farmers are large purchasers of all kinds of tires listed in the tender. If this kind of price reduction can be offered to one buyer, it is obvious the general public is paying more than it should for tires.

CONCLUSIONS:

Agriculture in Canada has undergone and is undergoing rapid change. With the advent of mechanization, the "creative destruction" process spelled doom to the agriculture based on man and animals as the source of power. The new replaced the old.

Early mechanization, however, simply introduced new ways to do the same things better, more timely and easier. It released a large number of the farm labor force, but left untouched the social structure. Changes now taking place threaten the foundations upon which our food supply is built.

The survey conducted by the union and translated in table form for your benefit gives a picture of prairie agriculture. A comparable survey in other parts of Canada would give a more complete picture. It is imperative that Canada give very careful consideration to the changes that new technology is forcing upon agriculture, and if it is desirable, to regulate it.

Technology in farm machinery is only one part that needs to be examined. The terms of reference given you are broad enough so you are in a position to make recommendations on the "total cost" of farm machinery, including the social cost.

Evidence contained above suggests the farm machinery dealer to be no longer independent, but that machine companies really control his actions. The time has come when it should be recognized. There is need, however, for private individuals who are interested in other private individuals in a community. We consider this to be the case in the servicing of farm machinery. We have, therefore, concluded that sales of machines and parts should be separated from mechanical service.

During the 1960's, agriculture has not generated within itself sufficient capital to finance its own expansion. It has been necessary to increase maximum available through public finance programs, if agriculture was to expand. If it is desirable that farmers use larger machines, FIL maximums will have to be raised again or company finance will be used.

Land prices have increased very rapidly, particularly in the 60's. We consider this to have been caused by the following:

- 1) Increase in productivity through new technology.

2) Decreasing returns from machinery investment in relation to return on land.

3) Inflation and potential capital gain.

4) Activities of FCC.

5) Continued pressure for efficiency through expansion.

By an Act of the Legislature, the province of Saskatchewan tested farm machinery offered for sale in Saskatchewan. Reports published by the administration informed the farmer how the machine performed and how durable it was. Testing was discontinued in 1964.

Saskatchewan farmers were pleased with the service provided. Canadian farmers would like to see a similar service provided on all machines offered for sale in Canada.

Farm machinery companies have agreed that certain parts of tractors should be standardized. PTO shafts, PTO speeds, hydraulic cylinders, to name a few. Ford has recognized the advantages and now has many components interchangeable in all models of its tractors. Farmers are of the opinion that there has only been a beginning in standardization.

Quality of mechanical skills is low in many rural shops. It is our opinion that the more skilled workers are attracted by better wage levels and living conditions in larger centres. If rural areas are to attract better mechanics, then it must be both willing and able to pay higher salaries.

Tractors are noisy creatures, with noise levels well above the safety level, resulting in hearing loss of many operators. Left to their own devices, we doubt if the manufacturers will remove the danger to the operator.

The distribution pattern developed by CCIL appears to be the general distribution pattern of the future. We fully expect to see other distributors follow their lead shortly. CCIL is having difficulty in maintaining continuity of supply of major machines. Smaller machines of its own design and manufacture are accepted by farmers and we expect additional machines would also be accepted.

Custom work has not yet become a very significant factor. We doubt if it will, to any degree, due primarily to the relatively short period of time when most farm work must be done. We live in a northern climate, and have not yet found ways and means of controlling the weather.

Finally, evidence points to a considerable saving in overhead by the use of machines in partnership. The one big problem to be overcome is the human problem. In an industry dominated by individualism, it may be difficult.

RECOMMENDATIONS:

- 1) That the commission consider very carefully the effect of its recommendations on the future structure of agriculture in Canada.
- 2) That sales of machinery and parts be separated from the mechanical servicing of machines in the following manner:
 - a) Sale of machines and their repair parts be the responsibility of the distributors.
 - b) Mechanical service be the responsibility of private individuals.
- 3) That FIL maximum be raised if technology is to remain unregulated in Canada.

4) That the government of Canada establish a public agency to:

- a) Test and report upon the performance and durability of farm machinery sold in Canada.
- b) Conduct the tests through regional branches.

5) That to as great a degree as possible and practical, machinery parts to be standardized within companies and between companies.

6) Tractor manufacturers be required to:

- a) Print in the operator's manual the noise level of the tractor.
- b) Print in the operator's manual the noise safety level.
- c) If the noise level is above the safety level, recommend what precautions the operator should take.

7) That encouragement be given to partnership arrangements in the use of farm machinery.

All of which is respectfully submitted by

THE NATIONAL FARMERS UNION.



